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and

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As a retired BLM mineral examiner (CME #002 and CRME #002) and author of 6 editions of *Mineral Law*, I have followed the legal history of the Pitkin claims in Glenwood Springs for many years. Most recently, I reviewed Rocky Mountain Resources' (RMR) proposed plan of operations regarding its plan to expand the Mid-Continent limestone quarry to 320 acres and produce 5 million tons per year.

During my review of RMR's proposed plan of operations dated November 21, 2018, I was surprised to find an obvious and very significant irregularity in the proposed plan. RMR apparently has not performed sufficient exploratory drilling on the 320 acres on the proposed quarry site. Although RMR contends that exploration drilling has occurred within most of the expansion area during the past 30 to 40 years, it not only provides no documentation of this drilling information in the operating plan, but volunteers that the drill data "does not have the necessary level of accuracy needed for today's mining engineering requirements." Considering the steep terrain of the proposed quarry site, I am extremely dubious that meaningful exploration drilling was conducted on the entire expansion area over the past 30 to 40 years. Since the BLM 3809 Surface Management regulations have been in effect since January 1, 1981, any such drilling operations would have been authorized by the BLM under a notice or a plan and the local BLM would have a record of this exploration drilling.

By its own admission in the plan of operations, RMR plans exploration drilling "to determine deposit extents, quality, boundaries, and composition" before mining each part of the quarry. This is clearly an admission by the company that it has not made a discovery on any of the 44 placer mining claims where more exploratory drilling is needed. It is well established in mining case law that if a deposit requires additional exploration to determine grade and extent of the deposit, a discovery has not been made.

How can RMR estimate reserves, propose products to be mined, design quarry operations, design a processing plant, anticipate and mitigate environmental problems

and prepare a reclamation plan when it has very little knowledge of the limestone deposit it intends to mine. The Plan states at page 5-11:

Exploration drilling has occurred within most of the proposed expansion area over the past 30-40 years. Data from this drilling is good but does not contain the level of accuracy needed for today's mining engineering requirements. As a part of initial quarry development, and then as a part of ongoing operations, RMR plans to conduct additional **exploration drilling** to determine deposit extents, quality, boundaries, and composition. The data gathered in the **exploration drilling** will be used to model the geologic characteristics of the formation and create engineered plans for bench and backslope development along with reclamation surfaces. All drilling will be conducted in areas where quarry activities will occur shortly after the **exploration drilling** is completed. *Emphasis Added.*

If the deposit requires additional exploration to delineate the ore reserves and determine grade or quality before development may be confidently started, a discovery has not been made. In *Converse v. Udall*, 399 F2d 616 (9th Cir. 1968), *cert. denied*, 393 U.S. 1025 (1969), the Court affirmed the action of the Department of the Interior in drawing a sharp distinction between "exploration" for and "discovery" of a valuable mineral deposit. The court stated at 620 and 621:

Converse attacks the Secretary for drawing a distinction between "exploration," "discovery," and "development." But the authorities we have cited show that there is a difference between "exploration" and "discovery." * * * They do not support the attack here made upon the distinction between the exploration work which must necessarily be done before a discovery, and the discovery itself, which is what the Secretary talks about when he distinguishes between "exploration" and "discovery." The real question here is not whether there is such a distinction, but whether Converse's exploration had resulted in a legal discovery.

In *United States v. Lundy*, A_30724 (June 30, 1967), specific examples of exploration work are discussed by the Secretary:

There is a clear distinction between "exploration" and "development" as they relate to discovery under the mining laws. The separate stages of mining activity serve as a basis for determining what further mining activity a prudent man would be justified in undertaking. Exploration work includes such activities as geophysical or geochemical prospecting, diamond drilling, sinking an exploratory shaft or driving an exploratory adit. It is that work which is done prior to a discovery in an effort to determine whether the land is valuable for minerals. * *

In *Cole v. Ralph*, 252 U.S. 286, 294-296 (1920), the Supreme Court held that a location "confers no right in the absence of discovery, being essential to valid claim." RMR clearly has no discovery on the placer claims that lack exploration drilling and has no rights under the Mining Law until it can complete the exploratory drilling, demonstrate a

discovery and validate the claims—a formidable requirement considering the size of the proposed expansion.

The BLM staff noticed the failure of RMR to conduct exploration operations before filing a proposed plan for development and mining operations. In the BLM letter dated December 21, 2018, Robert Berger, BLM Acting Field Manager of the Colorado River Valley Field Office, sent a list of additional information to Gregory Dangler, President of RMR Aggregates, Inc. The BLM cited 43 CFR 3809.420(a)(2) which requires mining companies to follow the “customary mineral exploration, development, mining and reclamation sequence.” In other words, exploration is completed first to determine if a discovery exists followed by development and mining. In Paragraph 11, Mr. Berger states:

11. Page 5-10, 2-5 Quarry Blasting Operations. Clarify the statement that RMR will not design engineered plans for each bench until shortly before its construction. Per 43 CFR 3809.420(a)(2) “Sequence of operations: *You must avoid unnecessary impacts and facilitate reclamation by following a reasonable and customary mineral exploration, development, mining and reclamation sequence.*” *Describe how RMR will follow a reasonable and customary sequence in the development of this operation. Emphasis Added.*

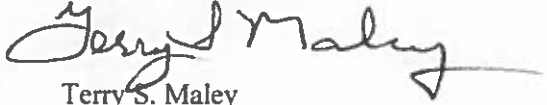
The BLM surface management regulations require a mineral examination prior to initiating mining operations for minerals that may be common variety minerals. 43 CFR 3809.101(a). However, these regulations allow for notice-level operations or BLM approval of a plan of operations for “[o]perations limited to taking samples to confirm or corroborate mineral exposures that are physically disclosed and existing on the mining claim.” 43 CFR 3809.101(b)(1).

RMR should seek approval from the BLM to conduct exploratory drilling and sampling operations for the entire 320-acre property through a notice or plan before submitting its plan of operations for development and mining. Any plan of operations for development and mining submitted before the company characterizes the mineral deposit through exploration drilling is putting the cart before the horse. The November 2018 Plan of Operations filed by RMR is a generic plan because it lacks the most crucial information about the mineral deposit—the grade, reserves and a three-dimensional picture of the mineral deposit or reserves to be mined. The proper sequence followed by all successful mining companies is to first conduct exploration drilling to establish the shape, size, extent and continuity of the mineral deposit and then prepare a development and mining plan. This will save both the company and the government time and money.

Exploration drilling is most likely the only way to establish a discovery on each of these 44 claims. Under the mining law, the claimant is required to make a physical exposure of the discovery—and only by drilling or deep trenching is it possible to obtain representative samples and comply with the discovery requirement. Surface chip or channel samples are generally not representative because of surface processes such as oxidation, enrichment, leaching and alteration. As a critical part of the mineral

examination, the BLM mineral examiner must observe all of the exploratory drilling operations and take a split of the cores or samples to verify the results.

Sincerely,



Terry S. Maley